

If no {Call proceeding} message is received or it does not contain <<BEARER CAPABILITY>> information element the service parameters have been accepted by the MSC IWU and no mapping between the <<BEARER CAPABILITY>> and <<IWU-ATTRIBUTES >> information element is needed.

2. PP Terminated Call (See FIG. 46)

Upon receipt of CC-SETUP-ind with <<IWU-ATTRIBUTES>> containing the value "Extended exchange parameter negotiation" in the <<Negotiation indicator field>> from the CC entity the PP IWU will reject the request immediately issuing MNCC-REJECT-req with <<Release reason>> Hex 07 "Negotiation not supported" if the PP cannot support Extended exchange attributes negotiation.

If the PP can support the Extended exchange parameter negotiation the PP IWU will add the new desired attributes values to the <<IWU-ATTRIBUTES>> information element of the {CC-INFO} message. The {CC-INFO} message can be sent only following by {CC-ALERTING} message.

2) and 3). It is then the responsibility of the PP IWU to suspend the submission of the {Call confirm} and {Alerting} message towards the GSM network until the new desired values have been received in the {CC-INFO} message. The new values in the <<IWU-ATTRIBUTES>> information element of the {CC-INFO} message are mapped into the GSM BEARER CAPABILITY element of {Call Confirmed} message. Other mappings between {CC-CONNECT} and {Connect} message as well as {CC-ALERTING} and {Alerting} messages are done as described in ETS 300 370 FINAL DRAFT prETS 300 370. Radio Equipment and Systems (RES); Digital European Cordless Telecommunications/Global System for Mobile communications (DECT/GSM) inter-working profile. Access and mapping (Protocol/procedure description for 3.1 kHz speech service). European Telecommunications Standards Institute. September 1994. 98 pages.

The PP IWU shall not send the {CC-INFO} message after {CC-ALERTING} message if it agrees with the service parameters proposed in the {CC-SETUP} message. If {CC-CONNECT} message is received as a response to the {CC-SETUP} message the proposed parameters have been accepted. If the PP IWU accepts the parameters proposed by MSC the call establishment proceeds as defined in ETS 300 370.

The present invention includes any novel feature or combination of features disclosed herein either explicitly or any generalisation thereof irrespective of whether or not it relates to the claimed invention or mitigates any or all of the problems addressed.

In view of the foregoing description it will be evident to a person skilled in the art that various modifications may be made within the scope of the invention in particular the invention is applicable for use under other protocols including Wireless Customer Premises Equipment (WCPE) and Personal Handyphone System (PHS).

What is claimed is:

1. A messaging system for communicating a message between a first communications unit having a first messaging entity and a second communications unit having a second messaging entity, each messaging entity having a messaging call control means for establishing a messaging communications link with the other messaging entity; and a messaging means for, once the messaging communications link has been established, exchanging messaging information with the said other messaging entity wherein the mes-

saging entity receives data from and transmits data to the application layer of the communication protocol such that each messaging entity comprises a virtual layer between an application layer and a network layer of a communication protocol.

2. A messaging system as claimed in claim 1, wherein the messaging call control means operates under the control of the messaging means.

3. A messaging system as claimed in claim 1, wherein the messaging information includes header data and user data associated with the message.

4. A messaging system as claimed in claim 3, wherein the header data and the user data include data defining a message sequence number of the message.

5. A messaging system, as claimed in claim 1, wherein the messaging communications link uses two links.

6. A messaging system, as claimed in claim 5, wherein one of the links carries header data and the other link carries user data.

7. A messaging system, as claimed in claim 6, wherein the said one link operates through a C-plane and the other link operates through a U-plane.

8. A messaging system as claimed in claim 1, in the messaging communications link is made by means of a radio link between the first communications unit and the second communications unit.

9. A messaging system as claimed in claim 8, wherein the first communications unit is a portable part and the second communications unit is a fixed part.

10. A messaging system as claimed in claim 9, wherein the radio link operates according to the DECT WCPE or PHS protocols.

11. A messaging method for communicating a message between a first communications unit and a second communications unit, the first communications unit having an application layer, a messaging entity and a network layer, the method comprising the steps of:

transmitting a signal from the application layer to the network layer as a means of establishing a call;

exchanging messaging information between the application layer and the network layer by way of the messaging entity to communicate the message; and

transmitting a signal from the application layer to the network layer as a means of disconnecting the call, wherein the messaging entity constitutes a virtual layer between the application layer and the network layer of the communication protocol.

12. A messaging method for communicating a message between a first communications unit and a second communications unit, the first communications unit having an application layer, a messaging entity and a network layer, the method comprising the steps of:

transmitting a signal from the messaging entity to the network layer as a means of establishing a call;

exchanging messaging information between the application layer and the network layer by way of the messaging entity to communicate the message; and

transmitting a signal from the messaging entity to the network layer as a means of disconnecting the call, wherein the messaging entity constitutes a virtual layer between the application layer and the network layer of the communication protocol.